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(54) **Enhanced Performance Proximity Sensor**

(57) An industrial control sensor is provided. The sensor includes a sensor circuit to detect changes in an electromagnetic field induced from an object or material passing in proximity of the electromagnetic field. This includes a housing that employs the sensor circuit as part of an inductive proximity sensor. A sensor face is at-

tached to the housing, where the sensor face receives the changes in the electromagnetic field and transmits the changes to the sensor circuit, and where the sensor face has a higher electrical resistivity or a lower temperature coefficient of resistivity than stainless steel.

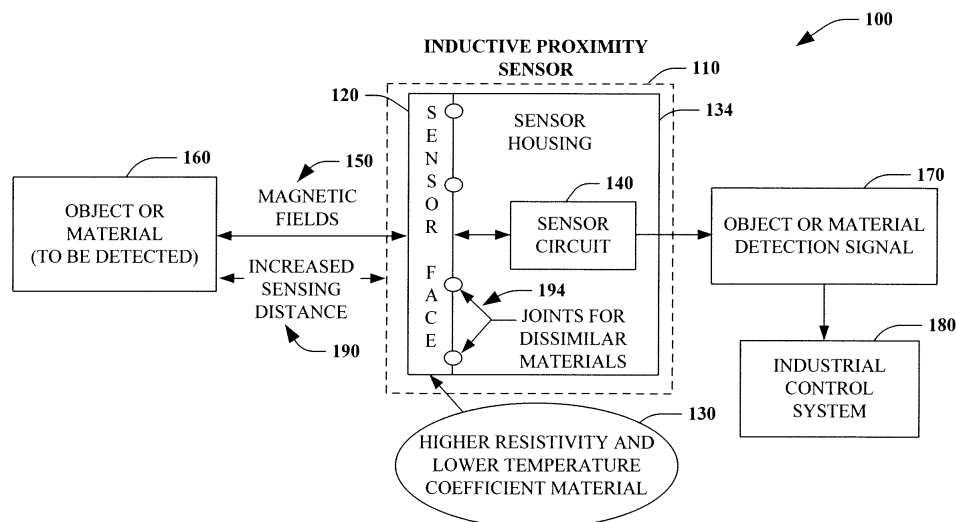


Fig. 1



EUROPEAN SEARCH REPORT

 Application Number
 EP 10 18 9734

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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Y	* column 3, lines 54-75 * * column 4, lines 1-75 * * claim 1 *	2,3,13, 14,20	ADD. G01B7/14
X	US 2001/019262 A1 (WOOLSEY KEVIN [US] ET AL) 6 September 2001 (2001-09-06)	1,4,6-9, 11,12, 15,17-19	
Y	* paragraphs [0010] - [0012], [0040], [0041], [0056], [0077], [0079], [0090]; figures 1, 2 *	2,3,13, 14,20	
Y	US 2006/059056 A1 (TSUCHIDA HIROYUKI [JP] ET AL) 16 March 2006 (2006-03-16) * paragraphs [0049] - [0055], [0061] - [0066]; figures 1, 3, 5, 6, 8, 10, 11 *	1-3, 12-14, 19,20	
Y	US 6 326 790 B1 (OTT ELLEN [US] ET AL) 4 December 2001 (2001-12-04) * column 14, lines 4-15, 30-36 *	1-3, 12-14, 19,20	TECHNICAL FIELDS SEARCHED (IPC) G01V G01B H03K
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 28 September 2016	Examiner Naujoks, Marco
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 10 18 9734

5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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